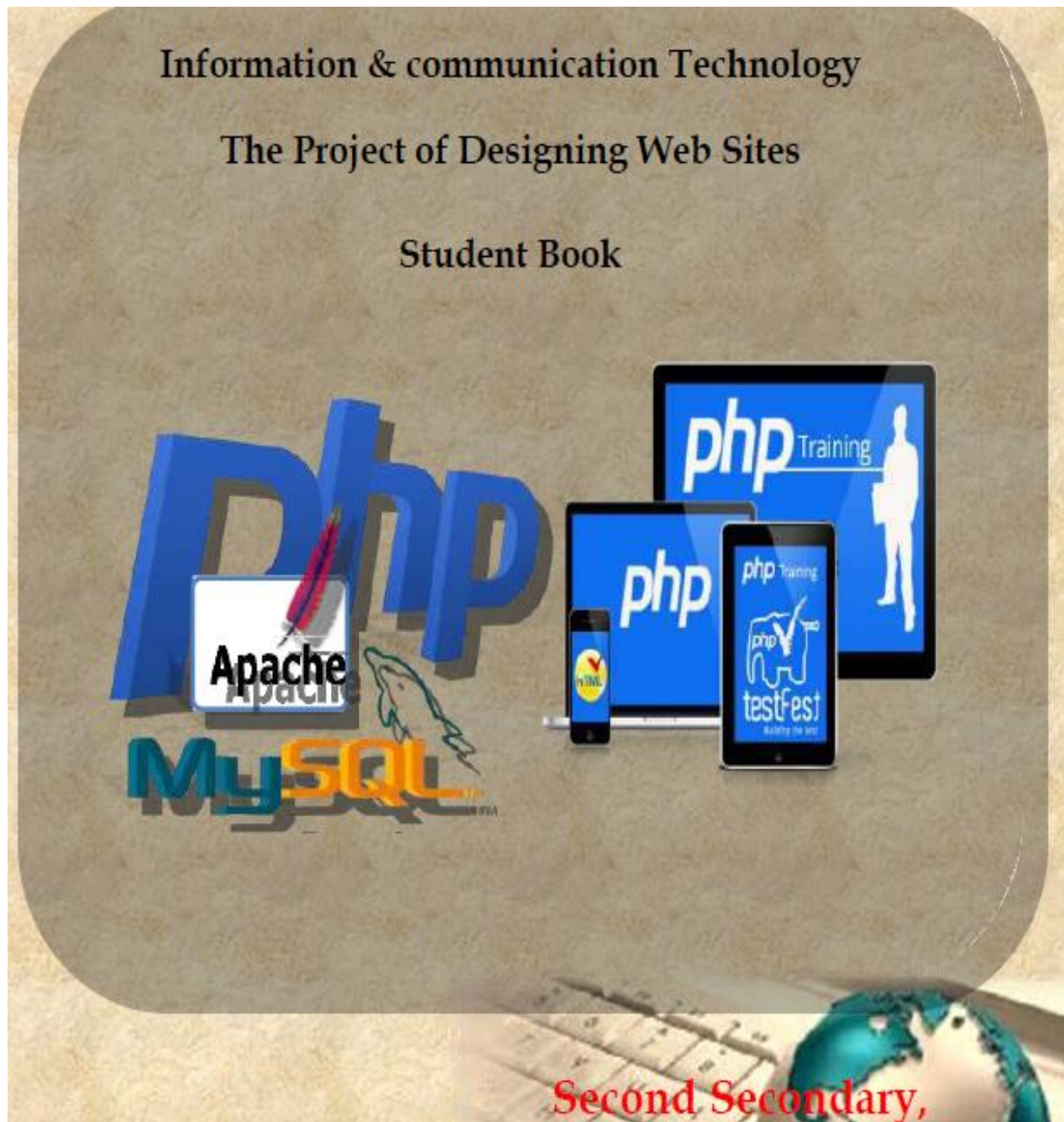


**GEEL2000 LANGUAGE SCHOOL**

**COMPUTER DEPARTMENT**

**SECOND TERM**





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# Unit 4






## Dealing with the Website Data

**At the end of the unit the student will be able to:**

- 1- Creating searching for term page
- 2- Explaining PHP code which is concerned with creating search for term page.
- 3- Follow the steps of searching for term in the data base. 4- Creating deleting term page.
- 5- Know the parts of PHP code which is concerned with executing deleting term page.
- 6- Executing deleting term process from data base.
- 7- Creating the page of editing the data of a term by using PHP& HTML code.
- 8- Executing the process of editing the data of a term in the data base.
- 9-conclude the steps of creating help page.
- 10- Cooperate with classmates in executing the unit activities.

Num	The page name	Its purpose	Description	Page planner
1	Main page Index php { has been created }	Activate the hyperlinks that could move from one page to another	It represents the beginning of the page that appears to the user the time it uploads From it we can move to the other pages.	
2	The connection page to the data base.connection .php {It has been created }	Achieving connection with the data base. It is called before dealing with the data.	This page doesn't appear in front of the user, it's separated to have only a line of a code that achieve this connection with the data base , at the beginning of the page instead of repeating the connection code with the whole data base.	PHP code  .For the connection to the database
3	The header page header. php.{It has been created }	Showing the photo <i>banner</i> and the hyperlinks that takes us to all the pages, it is called at the beginning of every page.	This page contains stable parts that we need to show in all the website pages. So it has been split in an independent page . it is called through writing a one line code at the beginning of each page	

We have finished 2 stages of the project, the first & the final vision; in it we specify the website pages and creating some of them. We already have created some pages; the following table describes briefly the website pages, and what we have executed.

Num	Page name	Its purpose	Description	Page planner
4	Add term page { Add_term.php {it has been created}	Inserting term & all its data in terms table in the data base.	An independent page in it a code to call header " header.php & another code to call connection page so we could add a new record to the data base	
5	Search for a term. Search_term.php. {it hasn't been created}	Searching for a term in terms table in the data base.	An independent page in it a code to call header " header.php & another code to call connection page so we could search for a term in the data base	
	Page of editing term Edit_term. Php. {it hasn't been created}	Editing the data of a term in the terms table in the data base.	When editing a term, we choose the term we want to edit then we edit it and then save it.	
7	Page of deleting term Del_term.php. {it hasn't been created}	Deleting data of a term in terms table In the data base.	We could delete the term that has been chosen.	
8	Help.page. {it hasn't been created}	Show information about the website & what follows.	Usually we find in most of the web pages "About us" in it some information about the headquarter the site belongs to and the way of communicating with it like phone numbers, emails on the social networks.	

# First Subject

## Search for term page

### Search\_term.php

#### Learning outcomes:-

At the end of the subject the student will be able to:

1. Explain the looping statement (DO-while –while –for)
2. Design the interface of search for term page.
3. Explain the HTML code of the search for term page.
4. Add the parts of php code in the right place inside the code page.
5. Add PHP code to include header & connection pages.
6. Cooperate with friends in writing php code for searching for a term.
7. Execute the search for term process.

Before creating search for term process we should shed the light on:

- The looping concept.
- Some statement of looping in php language

We need in some programs to repeat a certain code many times or repeating it to a certain limit and this is what we will use when writing PHP code of the following pages.

Search for term page



edit term page.



Where

- We need repeating a certain code which could deal with the table records, this term should be in the record & it is the same term which we search for or edit.
- Before, in the preparatory stage you had studied & learnt its main structure. PHP language affords looping statement like

### (For - While – do... While)

Here are some examples of using the looping statement by PHP code.

Here is an explanation for using the looping statement through simple examples:

#### A- While statement

##### Some examples on the usage of while

Writing code by printing numbers 1:100 by php language.

```
(1) <?PHP
(2) $x = 1;
(3)     While ($x <= 100)
(4)     {
(5)         Echo ($x);
(6)         Echo ("<Br>");
(7)         $x ++;
(8)     }
(9) ?>
```

##### *The explanation of the code*

- 1) The beginning of php code.
- 2) Variable starts with 1 value.
- 3-Executing all the instructions in looping statement which appears between 2 brackets { } as long as the condition is right, as long as the variable \$x less than or equal 100.
- 4-The beginning of looping statement.
- 5-Printing the variable value.
- 6-Moving to a new line (executing HTML code inside php code).
- 7-Increasing the numerical or variable with value 1.
- 8-The end of the looping statement
- 9-The end of PHP code.

#### Printing the result of the total of 2 numbers by using PHP language

```
<?php
$x = 1; // بداية العدد
$total = 0; // مكان لحساب فيه المجموع
while( $x <= 100 )
{
    $total = $total + $x;
    $x++;
}
echo " الناتج هو ";
echo "<br>";
echo $total;
?>
```

##### Study the opposite code

- ➡ Discuss with your classmates and your teacher.
  - ➡ Specify the difference between this code and the previous code. Example 1 guides you.
- Compare between this code with what had you studied in the preparatory stage.

Figure {1} PHP code for using looping statement while

#### Example:3

Printing numbers from 1:100 as follows



```

1( <?PHP
2( For ($x = 1; $x <= 100; $x ++)
3(     {
4(         Echo ($x);
5(         Echo ("<Br>");
6(     }
7( ?>

```

### *The explanation of the code*

- 1) The beginning of code php.
- 2) For statement and it contains three (arguments)

◀ \$x = 1 :

The beginning of the variable \$x with value 1

◀ \$x <= 100 :

On condition is tested less than or equal 100 where repetition stops if the value of the variable \$x is more than 100.

◀ \$x ++:

Increasing the variable value \$x by 1

- 3- Do { 3 , 4, 5, 6 } statement The printing instructions which is repeated as long as the condition if For statement is true

While statement to execute the previous example is printing the numbers from 1 to 100 as follows :

```

(1) <?PHP
(2) $x = 1;
(3) Do
(4)     {
(5)         Echo ($x . "<Br>");
(6)         $x ++;
(7)     }
(8) While ($x <= 100);
(9) ?>

```

### *Explanation of the code*

- 1) The start of the code php.
- 2) A variable we have in it the start of the numbers with 1 value.
- 3) Statements execute what follows.
- 4) The start of repetition statement.
- 5) Printing the variable and moving to the next line.
- 6) Increasing the variable with the value 1.
- 7) The end of the looping statement.
- 8) It's a must to stop repeating, if the variable value increased more than 100.
- 9) Ending the code.

The following table explains how every statement works :



The looping statement	Explanation
<b>While { }</b>	It is used to execute unknown or un limited number of repetitions and these repetitions can be executed only on one condition at first, testing the condition and be sure the result is true. the following repetitions will be executed and this repetition continues as long as this condition is true. -if the condition is false the repetition can't be executed Example: searching in data base and searching the internet.
<b>Do { } while</b>	Is used in executing an unlimited or unknown number of repetitions , and you start in executing a repetitive circle once before testing the condition if it is true , then it is repeated and the instructions are executed in the circle , the result becomes false then the repetition stops and going out from the circle. Example { printing the primary value of the variable }
<b>For { }</b>	It is used to execute an unknown or unlimited number of repetitions. It works the same way as while statement. Example (printing the email address of the ministry website 10 times).

After we have mentioned the looping statements and how to write them by PHP language we start creating search for term page, it is as follows:



Figure (2) the suggested layout of search for term page.

## The steps for creating search for term page

(1) Designing the interface of search term page.

The purpose of creating this page, searching for term in the database as it is one of the terms that are inserted in the terms table in the dbdictionary this by using select statement.

Cooperate with your classmates to use what they had studied in the programs of editing and processing pictures, this to have a vision of designing the interface of search for term page.

The web page title is "search for term".

A Form has been inserted from toolbox window, where it contains the control elements in search page.

The label "the search term" and next to it the textbox where we insert the term that we need to search for.

The order button 'search by word' and who is responsible for executing php code, which is about search for term process in the data base.

Insert a table where in it appears only grade one. In it titles and the columns headers in which the search results appears, through adding a row to every term in it shows its data.

we can use some of the applications of creating web pages like expression web by writing text and inserting the controlling tools from toolbox window in design mode { as you had learned when creating adding term page in the first term the image of the search term becomes as:

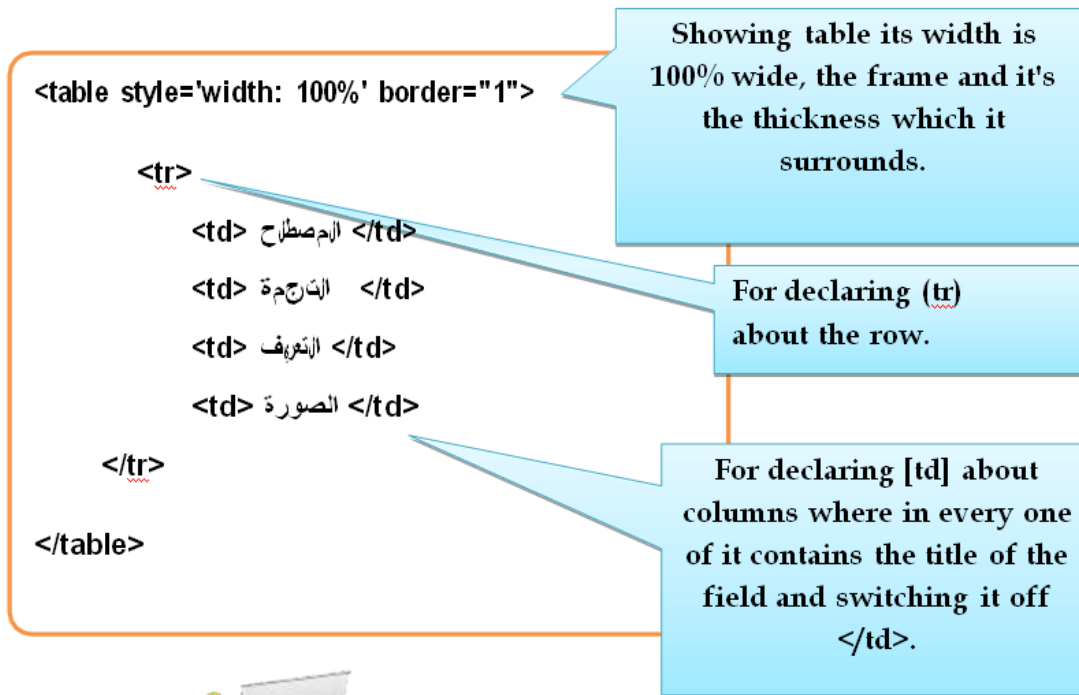


Figure (4) showing search for term page on the browser screen

Remember:

In expression web ' program, you could know the code of creating table (which is inserted in Design mode).

This is by selecting the table then showing HTML code, which is generated by pressing on code button and it is :



## (2)Write PHP code:

On loading search page on the browser, you can show the search results for a term by a term number (code) or term name on the database. Then enter the term or the term number we want to search for. In this case the browser won't show the term data, when we click the button (search by word / search button). Then, you will find that there is no response or data to be displayed because there is no link between controls on the browser with the content of database. Therefore, we need to:

display the image banner and the title of the web pages at the top of the window, through adding PHP code related to including the page "header" in the position referred to in (1) on the previous screen by the following code.

```
<?php  
include("header.php");  
?>
```

- Including the page of connection to database.
- Typing the PHP code related to term search in the database using its name or number which we entered in the browser page, then displaying its data on the

page. Later, in detail ,we fill handle abbreviated PHP code, which searches for term data and display it in one line on the browser window without formatting (so as to abbreviate the code) based on the term code( number). In the professional detailed code, we display the search result on the browser in an organized manner in a table based on the term name showing deficiencies in the abbreviated code.

**Now we show the full HTML code of the search page and showing the place of writing PHP codes.**

```

1 <html dir="rtl">
2 <head>
3 <meta content="text/html; charset=utf-8" http-equiv="Content-Type" >
4 <title>بحث عن مصطلح</title>
5 </head>
6 <body>
7
8 <p class="style1"><span lang="ar-eg"><strong>بحث عن مصطلح</strong></span></p>
9 <form method="post" action="search_term.php">
10 <div >
11     مصطلح البحث
12     <input name="txt_search" type="text" style="width: 332px; height: 25px;" >
13     <input name="submit1" type="submit" value="البحث بالكلمة" style="height: 26px" >&nbsp;<br><br>
14 </form>
15 <br>
16 <table style='width: 100%' border="1">
17 <tr>
18     <td>المصطلح </td>
19     <td>الترجمة </td>
20     <td>التعريف </td>
21     <td>الصورة </td>
22 </tr>
23
24 </table>
25 </div>
26 </body>
27 </html>
  
```

Callout 1: Add PHP code number 1 (points to line 3)

Callout 2: Add PHP code number 2 (points to line 18)

Figure (5) HTML code which is about search for term page.

### the abbreviated PHP code:

The final purpose of PHD code is to search for a term the database file through "search for term" page that was previously designed through the term code or number. You can learn about the codes of terms through opening database table "terms" and using the codes in searching for a term to simplify PHd code making sure it functionins well and simply. The following abbreviated code achieves the this purpose .

```

<?php
    include("header.php");
    include("connection.php");
    if(isset($_POST['submit1']))
    {
        $code=$_POST['code_search'];
        mysql_query("SET NAMES 'utf8'");
        mysql_query("select * from terms where id=$code");
        while($row=mysql_fetch_array($query))
        {
            $term=$row['term'];
            $trans=$row['trans'];
            $defe=$row['defe'];
            $picture=$row['picture'];
            echo("$term $trans $defe
<input name='pic' type='image' src='$picture' width='80' height='80' />
            "); }    } ?>

```

In the previous abbreviated code, we notice the following:

- Including header.php
- Including the page of connection to database "connection.php" We will explain the code through the following:

### Explaining the code:

Code	Expalnation
<?php	The start of PHD code
if (isset(\$_POST['submit1']))	Varify clicking the submitbotton. Test the clicking of search botton. Then, the code between bracket ( ) is excuted.
\$code=\$_POST['code_sear ch'];	Assign the value the weaa enterd in text box to the variable \$code.
mysql_query("SET NAMES 'utf8'");	Using the mysql_query function to deal with the data on browser in Arabic coreectly and not in the shape of?????

```
mysql_query("select * from
terms where id=$code");
```

We use `mysql_query` function to execute query for the search for the record No stored in the variable `$code` with its equivalent in the variable code "id" in the database table.

searching for a term and perform it in a table

```
<?php
if(isset($_POST['submit1']))
{
    $txt_search=$_POST['txt_search'];

    mysql_query("SET NAMES 'utf8'");
    $sql="select * from terms where term like '%$txt_search%' ORDER BY term ASC";
    $query=mysql_query($sql);
    $num=mysql_num_rows($query);
    while($row=mysql_fetch_array($query))
    {
        $term=$row['term'];
        $trans=$row['trans'];
        $defe=$row['defe'];
        $picture=$row['picture'];
        echo("
            <tr>
                <td>$term</td>
                <td>$trans</td>
                <td>$defe</td>
                <td><input name='pic' type='image' src='$picture' width='80' height='80' /></td>
            </tr>
        ");
    }
}
```

Figure (7) php code that's about searching for term.

## Explanation of the code:

Explanation	Code
	<code>&lt;?php</code>
Be sure of pressing on submit button, test pressing on "search by word button"	<code>if (isset(\$_POST['submit1']))</code> <code>{</code>
It picked the term or the value that it has been inserted in the text box on the browser and put it in the variable <code>\$text_search</code> .	<code>\$txt_search=\$_POST['txt_search'];</code>
Using <code>mysql_query</code> to deal with data on the browser screen in Arabic correctly and it won't be shown in question marks like?????????.	<code>mysql_query("SET NAMES 'utf8'");</code>
Executing the query (save the result of the query in the variable.	<code>\$sql="select * from terms</code> <code>where</code> <code>term like</code> <code>'%\$txt_search%'</code> <code>ORDER BY term ASC";</code>
-Using select statement in searching for all the fields of the data table by using "like" parameter and also the	



### Using Mysql\_query

Using this function in executing the query and putting the result in variable \$query.

-Notice: it's possible to write select statement directly inside double quotation instead of variable \$ sql.

\$query=mysql\_query(\$sql) ;

Explanation	Code
<p>The result of the 4 variables are printed in a new row inside the previous table that is designed on the web browser screen.</p> <p>By writing HTML code inside PHP language by the order ; echo ( " " );</p>	<pre>echo("&lt;tr&gt;         &lt;td&gt;\$term&lt;/td&gt;         &lt;td&gt;\$trans&lt;/td&gt;         &lt;td&gt;\$defe&lt;/td&gt;         &lt;td&gt; &lt;input name='pic" type='image' src=         'picture' width='80' height='80' /&gt;         &lt;/td&gt; &lt;/tr&gt; ");</pre>
<p>Closing the bracket { means going back to While statement to repeat all the previous steps till finishing all the records in the result query \$query</p>	<pre>}</pre>
<p>Closing the last bracket {means closing if statement in the beginning of php code then at the end of the code.</p>	<pre>} ?&gt;</pre>



**Second subject**  
**Delete term pages**  
**Del\_term.php**

**Learning outcomes:**

At the end of the subject the student will be able to:

- 1- Cooperate with his classmates to have a vision of the interface of delete term page.
- 2- Create delete term page in designing pattern by HTML code through Expression Web program.
- 3- Use php code to include the two pages Header & connection.
- 4- Explain PHPcode that's about delete term.
- 5- Execute the process of deletion to a certain term.

**The steps of creating delete term page Del\_term.php:**

**(1) Designing the interface of delete term page.**

The purpose of creating this page is delete term inside the data base among the other terms that has been inserted in the data base table **dbdictionary**.

Cooperate with your classmates to use what have you studied before of designing pages programs like Expression web, which is for designing the interface of delete term page.

By pressing on “split’ button, you can show the page and the code which has been existed for creating it:

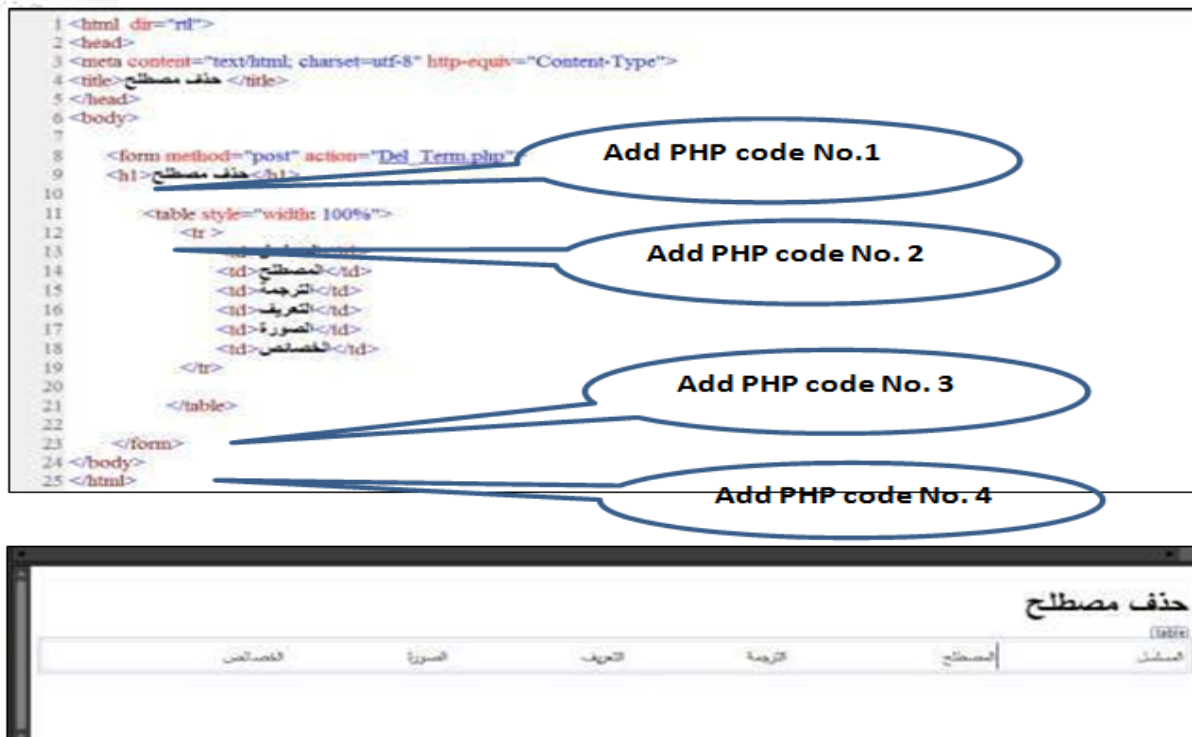
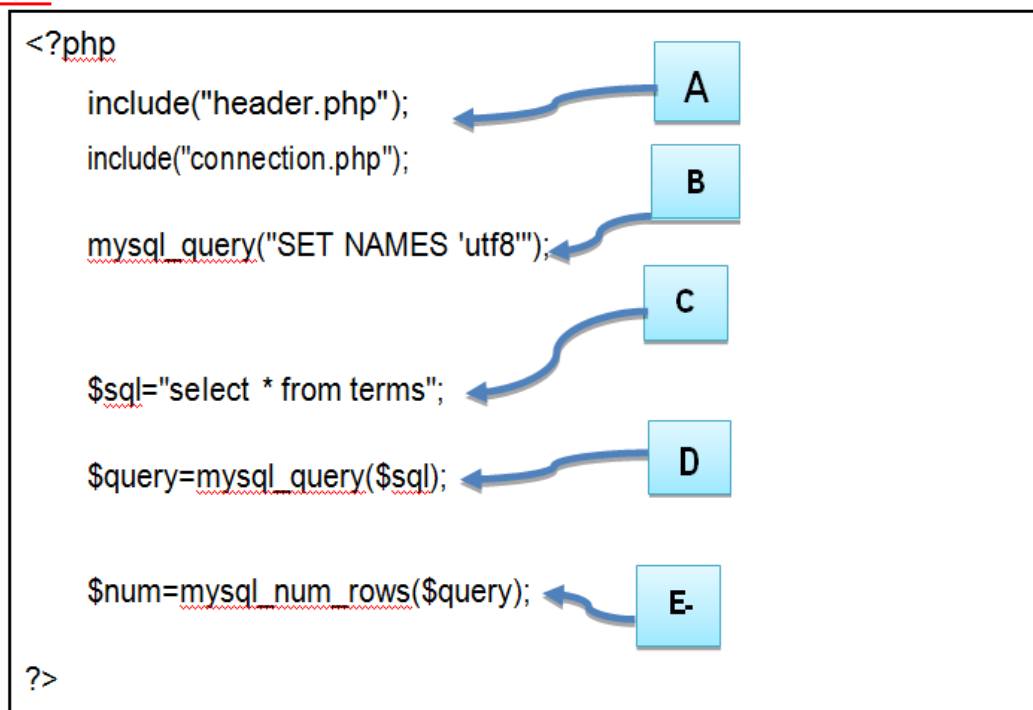


Figure (11) HTML code which is concerned with delete term page.

#### Writing PHP code:

In the following figure an explanation for the 4 parts of the code which will be added in its places in Figure (11) , the first part: it is shown as the following :

##### Part 1:

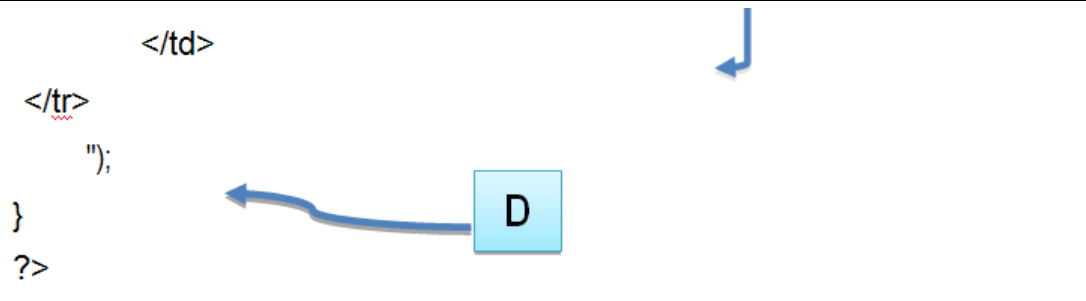


**No:**

The code

Its explanation

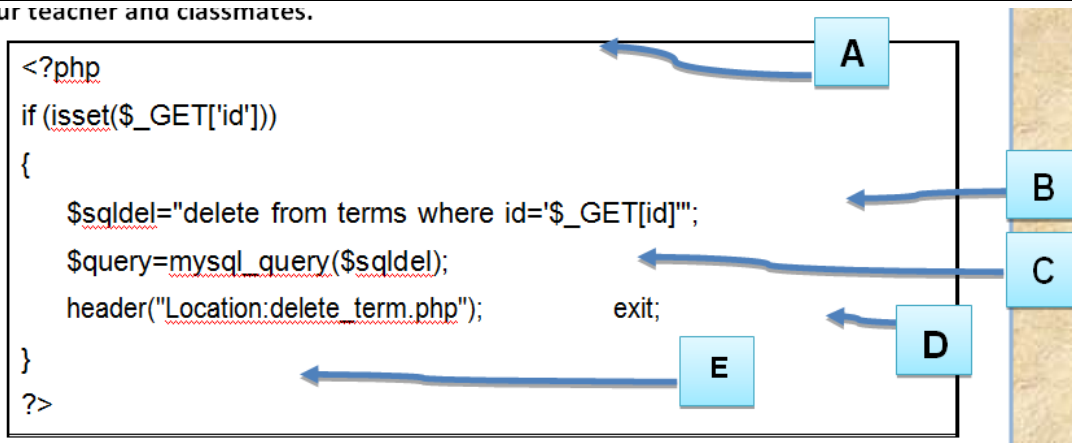




No:	Explanation	Code
A		<b>&lt;?php</b>
	Start of While statement	<b>while(\$row mysql_fetch_array(\$query)) {</b>
B	The purpose of this code is showing all the records of the database table 'terms'  As explained before.	<b>echo ("     &lt;tr &gt;         &lt;td&gt;\$id &lt;/td&gt;         &lt;td&gt;\$term &lt;/td&gt;         &lt;td&gt;\$trans &lt;/td&gt;         &lt;td&gt;\$defe &lt;/td&gt;         &lt;td&gt;             &lt;input name='termp' type='image'         src='\$picture' h='80' height='80'/&gt;     &lt;/td&gt;</b>
C	Creating a hyperlink on the word "delete" which appears at the end of the row which is concerned with the term, delete term page is called when pressing on it, this by ID which contains the number of the record we meant to delete it	<b>    &lt;td&gt;         &lt;a href='delete_term.php?id=\$id'&gt;             حذف         &lt;/a&gt;     &lt;/td&gt; &lt;/tr&gt;     ");</b>
D	Closing the repeating circle While , closing the code	<b>} ?&gt;</b>

#### Part 4:

our teacher and classmates.



No:	Explanation	Code
A	The Start of the code.	<b>&lt;?php</b>
	When pressing on the" delete" hyperlink, the delete page appears and we get the record we meant to delete  -The function result becomes :iss'(\$_GET['id]  Equal : true  So we execute the following instructions.	<b>if (isset(\$_GET['id']))</b>
B	Start of instructions.	<b>{</b>
C	Save delete statement which is concerned with deleting the record in variable \$sqlDel.	<b>\$sqlDel="delete from terms id=\$_GET[id]"; where</b>
E	Redirecting pages {reloading} the deletion page to show records after executing the deletion	<b>header("Location:delete_term.php"); exit;</b>
F	The end of (if) statement ,the end of the code	<b>} ?&gt;</b>

### Loading and showing the deletion page of a term in the browser window:

When loading the deletion page of a certain term, at first we show the terms and their data as in the following screen through the address localhost/dictionary/del\_term.php



Figure (12) showing deletion term page.

After that we select the term we want to delete

We choose the record we want to delete in deletion term page then press on delete button in front of the selected record (it could be the first record) then it is deleted and the internet browser screen appears as the following:

We have to be sure of deleting record from the database:

And to be sure of deleting certain record (term data) from data base, we open the database in a new tab then save the result in the browser and to be sure of deleting record from table terms.

"Localhost/phpmyadmin"

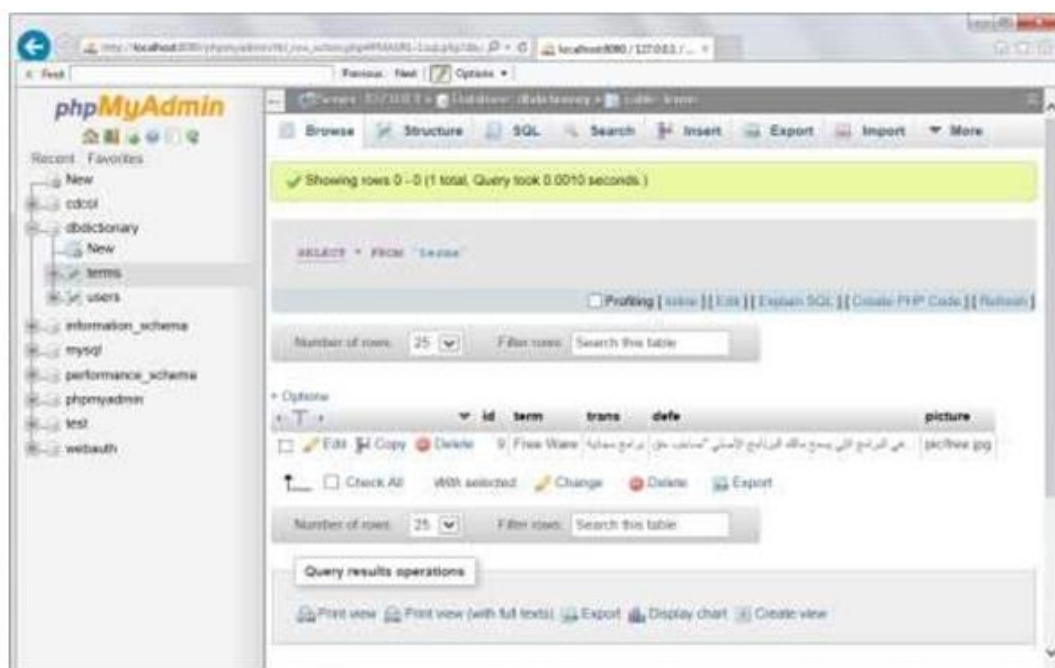


Figure (14) a screen shows the data base without the deleted term

# **The Third Subject**

## **Edit data page "edit\_term.php"**

## **Help page "help.php"**

### **Learning outcomes:**

**At the end of this subject, the student will be able to:**

- 1- Design an interface page of updating term.**
- 2- Execute HTML code for creating updating term page.**
- 3- Select code with php language that's suitable for inserting Header. PHP page .**
- 4- Use code with php language for Header & connection pages.**
- 5- Explain code with php language for updating term data.**
- 6- Update data in data base table.**
- 7- Cooperate with his classmates to be sure of updating the data of a term in the data base.**
- 8- Select the elements that could be shown in the Help Page.**
- 9- Create Help page.**



My dear student you have learned, that dealing with data bases Includes (adding-searching –deleting-updating)

Sometimes it requires updating or editing its data, so we have to create editing data term page and save the updated data in the data base.

Executing updating in term data, through the following stages: Creating updating data page.

**Showing** terms on the updating page. Choosing the term we need to update.

**Showing** the term data we meant to update in the controls on the browser.

Doing the update inside the data base.

**Showing** the data after updating.

**Firstly: Creating edit data term page:**

Through one of the applications of creating web pages:-

A-As we have created (searching-adding-deleting) pages, we do the same following steps :

-Writing the page title, inserting table. In the first row we write the columns titles as it shown in the following screen :



Figure (15) Designing the interface of update term page.

B-Doing the processing and updating in the term data, then we save the updates in the data base table this through php code parts that we have added in the places we refer to in the following figure:

```

1 <html dir="rtl">
2 <head>
3 <meta content="text/html; charset=utf-8" http-equiv="Content-Type">
4 <title>تعديل مصطلح </title>
5 </head>
6 <body>
7 <!-- php code number 1 -->
8 <h1><p>تعديل مصطلح </p> </h1>
9 <!-- php code number 2 -->
10 <form method="post" action="edit_term.php">
11 <!-- php code number 3 -->
12 <table style="width: 100%">
13 <tr bgcolor="#3Fff00">
14 <td>المسلسل</td>
15 <td>المصطلح</td>
16 <td>الترجمة</td>
17 <td>التعريف</td>
18 <td>الصورة</td>
19 <td>الخصائص</td>
20 </tr>
21 <!-- php code number 4 -->
22 </table>
23 <!-- php code number 5 -->
24 </form>
25 <form method="post" action="edit_term.php?id=$ GET[id]&action=$ GET[action]" enctype="multipart/form-data">
25 <form method="post" action="edit_term.php?id=$ GET[id]&action=$ GET[action]" enctype="multipart/form-data">
26 <hr style="color:orange.maroon;width:1267px"/>
27 <h2>تعديل بيانات </h2>
28 <hr style="color:orange.maroon;width:1267px">
29 <div>
30 <!-- php code number 6 -->
31
32 <!-- php code number 7 -->
33
34 </div>
35 </form>
36 </body>
37 </html>

```

Code php. No. 1

Code php. No. 2

Code php. No. 3

Code php. No. 4

Code php. No. 5

Code php. No. 6

Code php. No. 7

Figure (16) HTML code that is about creating edit term page.

### The abbreviated PHP code:

The final purpose of PHP code is editing the data of a term "term record"

in the terms table in the database through the updating page which previously designed and created. This is by displaying the data of all

terms and choosing a specific term to update its data as described in the most accurate PHP code or by entering modified data for a particular term by its code. The terminology code can be identified by opening the terms table and using the codes to modify the data of a particular term record to simplify the PHP code and ensure that it fulfills the purpose in a simple way. The following abbreviated code achieves this purpose:

```

<?php
    include("header.php");
    include("connection.php");
    mysql_query("SET NAMES 'utf8'");
    if(isset($_POST['Submit1']))
    {
        $fileName = $_FILES['filedata']['name'];
        $tmpName = $_FILES['filedata']['tmp_name'];
        move_uploaded_file($tmpName,'pic/'.$fileName);
        $iddata=$_POST['id_term'];
        $term=$_POST['txt_term'];
        $trans=$_POST['trans'];
        $defe=$_POST['TextArea1'];
        $picture="pic/" . $fileName . " ";
        echo ($picture);
        mysql_query("update terms set term= '$term',trans ='$trans',
        defe = '$defe' ,picture='$picture'
        where id='$iddata' ");
    }
?>

```

Code	Explanation
<?php	The beginning of the PHP code.
if (isset(\$_POST['submit1']))	Check the Submit button clicking
{	Testing the "Update" button and then the code between the brackets.} is executed
\$fileName = \$_FILES['filedata']['name'];	Store the image file name in the \$fileName variable
\$tmpName = \$_FILES['filedata']['tmp_name'];	
move_uploaded_file(\$tmpName,'pic/'.\$fileName);	Store the image inside the \$tmpName variable
\$fileName = \$_FILES['File1']['name'];	move_uploaded_file The function used to

```
$tmpName = $_FILES['filedata']['tmp_name'];
```

```
move_uploaded_file($tmpName,'pic/'.$fileName);
```

```
$fileName = $_FILES['File1']['name'];
```

```
$iddata=$_POST['id_term'];
```

```
$term=$_POST['txt_term'];
```

```
$trans=$_POST['trans'];
```

```
$defe=$_POST['TextArea1'];
```

```
$picture="pic/" . $fileName . " ";
```

\$fileName variable

Store the image inside the \$tmpName variable

move\_uploaded\_file The function used to upload the file, it needs two parameters, the first is image and the second is image file name and its path.

Through corresponding assignment statements the values of fields stored in the five variables (**\$term - \$iddata - \$trans - \$defe - \$picture**)

For example, the value of field 'id\_term' has been assigned to variable \$iddata and so on to other variables.

```
echo ($picture);
```

Print the variable \$picture content on the Internet browser screen.

By typing HTML code into PHP by command **echo(     );**.

**Use the function mysql\_query**

This function is used to perform an update query for a terms table for each of the fields (**term, trans, defe, picture**)

```
mysql_query('update terms set  
term= '$term',trans ='$trans', defe =  
'$defe', picture='$picture' where  
id='$iddata' ');
```

For the record with the id code and the query output in the \$ query variable. Thus, the value of each field in the data record, which equal to the value of id, is modified by the new value entered in the controls on the browser screen that were previously stored in the variables referred to.

```
}  
  
?>
```

Closing the last bracket} means closing the IF statement that is mentioned at the beginning of the PHP code.

Then the end of the code.

When you execute the previous code, you will modify the entire record or term data in the "Terms" table in the database. However, some limitations in the abbreviated code may be covered in code (b) more professionally.

- (1) The amendment is primitive by inserting all term data as if it were a new term and then updating the record based on the number or code of the term.
- (2) The best when modifying the term data is that all terms data are displayed in front of the user and then by pressing a button or an adjustment link next to a specific term whose data is called only and modify the data of term to be updated only then update in the data table.
- (3) (3) If the user presses the "Edit" button and no data is entered except the term code, all data of the record fields are updated with null values.

- (4) The primitive data update method does not give options to the user.
- (5) Modifying term data requires knowledge of terms codes or opening data table and access to terms codes. This method is not practical, so it is best to view the term data and choose the update process for a particular record or term.
- (6) When you modify the term data, a message does not appear stating that the modification was successful or that there is a problem, so it is preferable to show a message to the user explaining that the update was successful.
- (7) It is also best to view all the terms data before updating and then re-display all the terms data after the update to make sure that the modification has already been made.

More accurate PHP code:

Code number	The code			The purpose of the code
1		<pre>&lt;?php     Include ('header.php'); ?&gt;</pre>		Including Header page.
2		<pre>&lt;?php  include("connection.php");     mysql_query("SET NAMES 'utf8'");     \$sql='select      *      from terms"; \$query=mysql_query(\$sql); \$num=mysql_num_rows(\$que ry); ?&gt;</pre>		Do connection with the data base and count number of records that we want to update show all records of terms page



3

```
<?php
    echo("<h1> عدد المصطلحات
$num </h1>");
?>
```

showing number of records that are available to update , by studying the code, it shows that it prints the number of terms next to it the variable value \$ num which contains the number of terms which we get from the previous code.(part 2)

4

```
<?php
While ($row =
mysql_fetch_array($query))
{
    $id=$row['id'];
    $term=$row['term'];
    $trans=$row['trans'];
    $defe=$row['defe'];
    $picture=$row['picture'];
```

```
echo ("
    <tr>
        <td>$id</td>
```

```
echo ("
    <tr>
        <td>$id</td>
        <td>$term</td>
        <td>$trans</td>
        <td>$defe</td>
        <td> <input
name='term' type='image'
'src'='$picture' width='80'
height='80'/>
        </td>
```

A- Searching for the first record and saving the data in variables- using the looping statement While to do the code between two brackets according to the number of results ????? that we call for the first data record from the data base table by the query mysql\_fetch\_array then moving by the

from the data base table by the query mysql\_fetch\_array then moving by the pointer to the next record and put in in the 5 variables.

B- Inserting new row to the table of the browser screen which contains the value of the special 5 variables and showing it in the table which we have to correct it and it contains 6 columns.

### Thirdly: upload and update term data through web browser:

After finishing creating the page, you can open it through the web browser to try executing it and to be sure of the right work of the codes as in the following screen ,this by writing the following address:

**localhost/dictionary/edit\_term.php**

#### Updating term

We choose the record we mean to update in edit term page, then we click on the hyperlink update on the chosen record (it could be the first record), the update code is executed, then the web browser page appears and in it the term data under the page / at the end of the page where the user could update the term data and click on adding button as shown on the following screen:



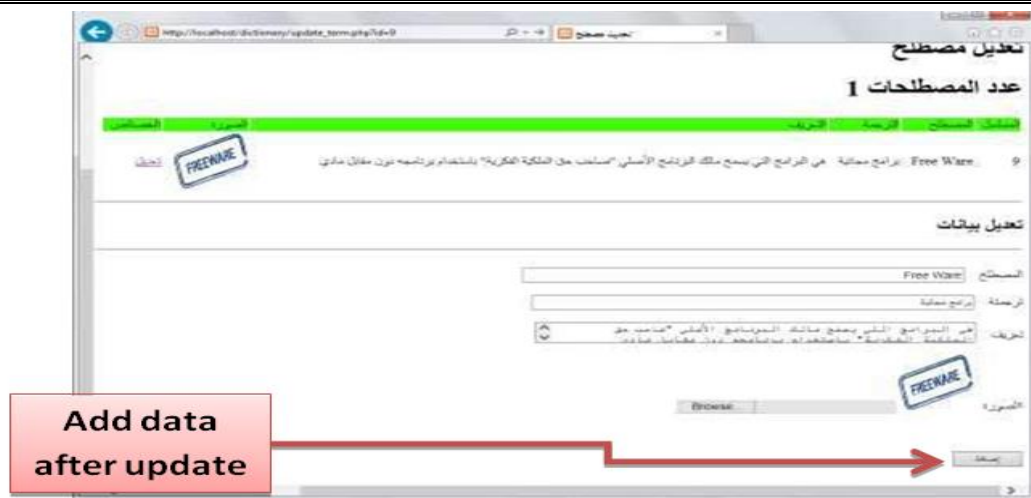


Figure (18) Executing editing term on the web browser window.

After updating and clicking adding the term data appears on the same web browser screen as the following figure:



Figure (19) showing the data on the web browser window after executing

#### Fourthly: The certainty of updating term data in the database:

You can open the data base in a new tab to the web browser and this by writing the following link (localhost/phpmyadmin) in the address line and watching the record after updating where the data base appears:

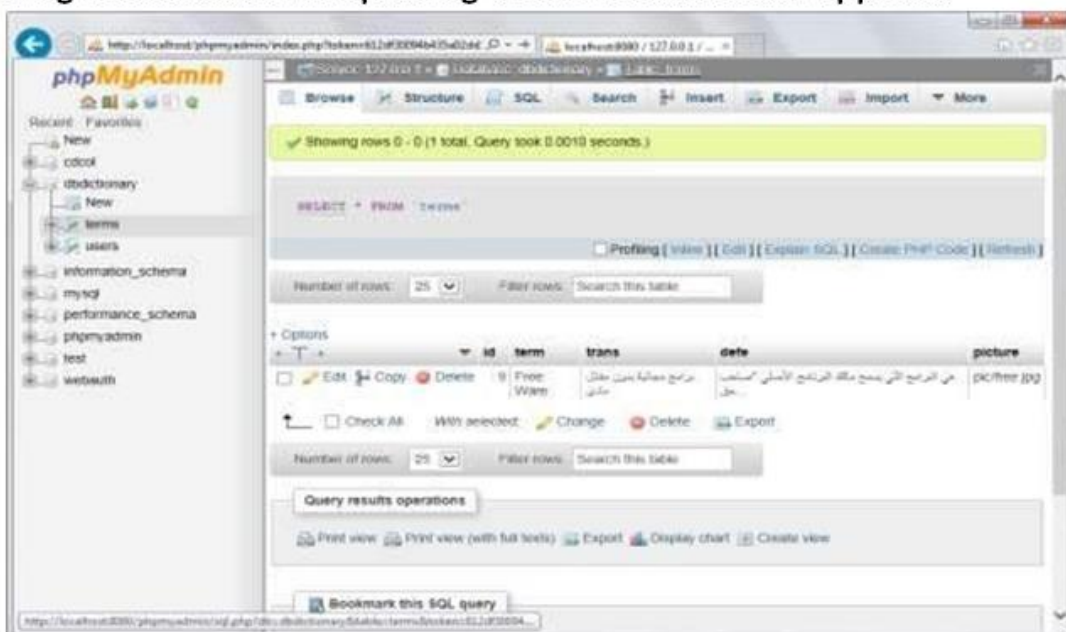


Figure (20) the certainty of updating/editing data base in data base table.

## **Creating help page:-**

**-in most of the web sites help page is available. It supplies the user with the information he needs to know how to deal with the web sites pages in it. The page includes:**

**1-An explanation of how to use the web site.**

**2- Direct hyperlinks to some of the web site pages.**

**3-Search for how to do tasks on the web site.**

**Some Help programs.**

**Hyperlinks to external sites.**

# Unit 5

## Securing Web " the computer photographic terms dictionary"

**At the end of this unit the student will be able to:**

- 1- Recognize some concepts & special terms concerning securing websites.
- 2- Create registration page of a new user
- 3- Create sign in php and sign out php registration page
- 4- Design an electronic mean to spread the awareness of the secure using of the internet
- 5- Discuss some concepts and some issues concerning safe thinking, safe information when using communication and information technology *means*
- 6- Following and respecting the ethics and principles of free thinking when dealing with information, equipments, nets , service and applications of the web
- 7- Keep the ethics and principles of law when using information devices and networks.
- 8- Follow the ways of protecting the application programs from the risk that might face it
- 9- Follow the ways of protecting websites, the database from risks that might face them
- 10- Document information that he gets from electronic information resources.

the ways of protection in case of breaking through the website in general let's start by explaining the following:

Conceptive entry for securing the websites. Creating a page for registering a new user.

Creating a page for a signing in & signing out

The necessary procedures for securing the web.

# **The first subject**

## **An entry in securing websites**

### **Learning out comes:**

**At the end of this subject, it's expected that student will be able to:**

- 1. Know what's meant by penetration.**
- 2. Explaining the ways of protecting a website.**
- 3. Searching through electronic information resources for ways and styles of penetrating websites.**
- 4. Conclude how to protect the photographic terms dictionary website.**

Securing websites is a necessity to stop penetration, which leads to many harms and negative results like:

Stealing or losing important database that may lead to great problems in all fields.  
Getting institutional or personal information and what harms it may cause.  
Showing unsuitable content that it might contains political, religious, ethical attitudes.  
Deforming the image of the foundation or the person who owns the website generally.

#### The penetration concept:

The website penetration, it's generally called website hacking by using the penetrator the hacker a way or a weak program that enables him to get the validity of controlling the website management or dealing with its database by any way (showing, deletion, editing and so on).

#### The ways of protecting the website:

1- Protecting server (website hosting) Protecting the website here is the responsibility of the sever or website hosting where it makes / sets security options & controls it more , also it endures the responsibility of too many challenges especially in the system of operating the server.

#### 2-protecting the website developers:

The website developers and those who are in charge of it are responsible for protection this through:

- Be sure of the inputs before storing it in the database.
- Encrypt password.
- Managing the important website folders with strong passwords.
- Specifying the user's validity correctly and clearly.

#### Some precautions to keep securing the website:

##### 1- Keep software up to date



Be sure of the continual updating programs that are in use, especially that are used for managing, designing the website. If it is the program operation system of the server or any other program that work on the website.

##### 2- Dealing with error messages

Dealing with error messages

in creating a website, error messages might appear, like that there is no connection to the database or not saving the term in the table correctly, so it's necessary to know the possible errors & try to hide them. Because these errors make the website weak and easy to be penetrated. There we should replace any error by another message that will appear to the user,

For example:

This message appears when undefined variable use it and not recognized.

Example:

This message appears when you use an undeclared variable

Notice: Undefined variable: ss in C:\xampp\htdocs\dictionary\_tv\test1.php on line 14

So, we must expect that and deal with it programatically

Through well prepared messages, those don't express to the user information that could be used for penetration. For Example, when there is incorrect password, a message appears saying that a username or the password is incorrect.

You will learn in this unit the skill of showing an incorrect message in different situations.

### 1- Input Data Validation

The certainty of the correct input data validation from the user {the website visitor} , If this doesn't happen, it paves the way to penetrating the website. This through inserting inputs causes penetration, so one of the main bases of protecting from penetration is to be sure of the user input data.

**For example** the certainty of the field contains values that don't exceed some or a number of letters or to be sure the field is not empty , that's by the ( if ) clause in the code of the used languages to be sure of the input data validity.

We can do that on two levels:

Firstly : using the server & by using php code

Secondly : the client server & by using java script code.

For Example the following example is used for the certainty that the field is not empty by using php code and it's done through the web site code.

```
IF ($term != "" && $trans != "" && $defe != "" && !empty($file)
```

```
{
```

The code that is executed for the certainty that the previous variables are not empty.

```
}
```

### 2- Passwords:

Passwords should be complicated so it would be difficult to a penetrator to discover it, especially the server password and the site admin password and the database passwords.

For the private passwords of the websites users: we could force the user to insert a passwords with special characteristics. For example a number of letters not less than 8 letters. There are capital letters with numbers and special signs.

## 1- Avoid inserting SQL statement is usually known by SQL injection through dealing with sites:

that a penetrator might try inserting special parameter inside SQL statement, this through the site data base input form to be done on the data base without informing the designer & the in charge of site to give other results, the penetrator could use it badly or do bad changes in the data table. For securing that we use SQL real –escape-string sign to prevent inserting

SQL statement to the data base so it won't be done on the data base.

## 2- Avoid writing XSS (Cross site scripting) code through the website.

Having no programming to be sure of the inputs & give the chance to the penetrator to write a code in the site may result that the penetrator may insert a code in the web pages, So this may lead to negative effects and risks to both the user & the website owner.

### **For example:**

If there is a form that allows the user to write a comment then show all comments successfully , the penetrator will use it to write java script code for example , when sending the comment to server , this code is stored in database , and when it is shown in HTML page the code is done this may redirect the user to another page and in it a harmful content or fishing page (it contains fake form to get important data from a user that visiting the site like passwords or a number of a visa card.

We can avoid that by using suitable programming style like not allowing any script in the comments fields.

### **6- File Uploads:**

Allowing file uploads to your site may cause great risks, we should avoid by following programming precautions, a file may contain script code it's done as soon as it opens on the server, and then your site becomes a victim to penetrator. We can treat this probability by testing the uploaded files.

### **For example:**

Be sure of the file identity, if the file was an image we should be sure of the file identity, where php language affords many programming styles to be sure of the file identity in the following code:

```
file = $_FILES['uploadedfile'];
$allowedExtensions = array("jpg","jpeg","gif","png");
if (!in_array(end(explode('.', $file['name'])), $allowedExtensions))
{
    echo 'عنوان... المسميات المسموح برفعها هي: jpg, jpeg, gif, png';
    exit(0);
}
```



It creates new array which contains a group of elements.

### Function in\_array

1<sup>st</sup> parameter

2<sup>nd</sup> parameter

**in\_array** (the element which meant to search in the array, arrayelements)

To be sure of the 1st parameter inside the elements of the array (2nd parameter).

### Function end

Is considered one of the arrays and meant to get back the value of the last element in an array.

### Function explode

1<sup>st</sup> parameter

2<sup>nd</sup> parameter

**explode('',\$file['name'])**

Its job is to transfer a variable to an array which contains several elements & gets two parameters:

1<sup>st</sup>: the ways of separation between the variable contents & it could be (space-dash- pholo stop) in the example it is (.)

2<sup>nd</sup>: it is the variable content which is meant to turn it into a text, and it is (\$filename).

6- Secure Socket Layer SSL :

It is a protocol to support secure dealing with web server and web browser through a mediator that's called certificate authority CA and could be translated by a translation sector, this affords secure pages which uses protocol HTTPS instead of the HTTP especially for the websites which deals with financial dealings or important data forms.

Example:

### **Using applications and security websites tools.**

After finishing designing the website, we should test the web security and the effective way is to use applications and web security tools against penetration by using codes & similar ways to what penetrators use and sometimes it's called (pen testing or penetration testing.)

There are a lot of applications that testing website security against penetrations some of them are free or open source.

Examples of these applications:

#### **1- OpenVAS:**

It is considered one of the biggest open source applications that is used widely for testing web security.

#### **2- Netsparker:**

is good for SQL injection and testing XSS.

**Securing the website photographic terms dictionary through:**

- 1- Registering the website users by creating a new user registration page (reg.php) and saving their data in the database.**
- 2- Confirming the login to allow the insertion and changing and deleting process by creating sign in php.**
- 3- Encrypting any user password.**

## **The second subject:**

### **Creating registration page (reg.php)**



### **Learning out comes:**

**At the end of the subject, it is expected that the student will be able to:**

- 1. Design new user reg.php page.**
- 2. Create users table in the database.**
- 3. Differentiate between get & post in sending the data to the server.**
- 4. Explain the probabilities of doing wrong in inserting wrong username & password.**
- 5. Share with his classmates in explaining php code for creating reg.php.**
- 6. Try reg.php to specify problems.**
- 7. Know the procedures to solve problems of creating new user reg.php.**
- 8. Explain the conditional statement (if) in the php code that is about confirming the identification of passwords.**
- 9. Search through the electronic information resources for types & styles of securing passwords.**

**Securing photographic terms dictionary website, it requires to do previous**

# Procedures to discuss it and starts with creating new usereg.php

Firstly: creating new user table called users in the database dbdictionary, it contains the following fields

Table: Users				
#	Name	Type	Length values	Index
1	Id	Integer	5	Primary
2	<u>UserName</u>	<u>VarChar</u>	30	
3	<u>PassWord</u>	<u>VarChar</u>	20	

Figure {21} Designing user's table

You have studied before the steps of creating users table in dbdictionary, follow these steps using the following:

1. Run the XAMPP control panel from the start menu as follows:

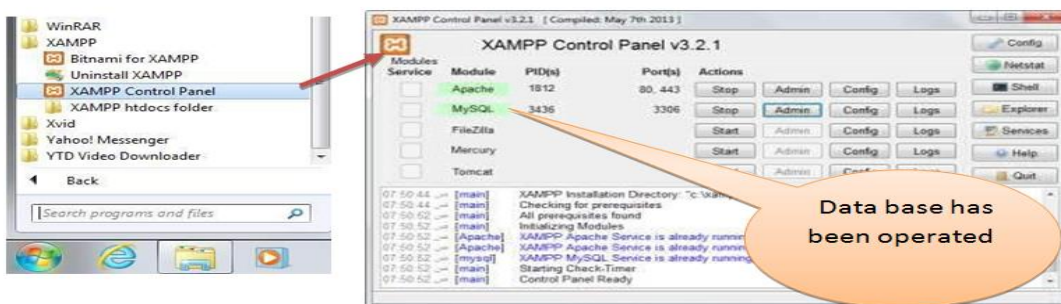


Fig. 22 Run the XAMPP Control Panel

2. A table has been created in the data base.

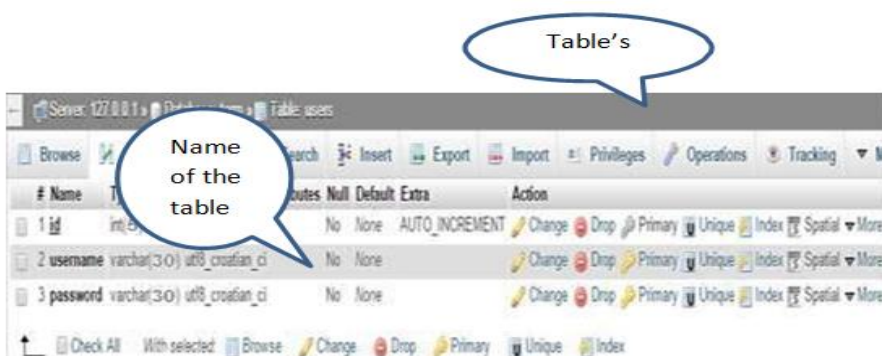
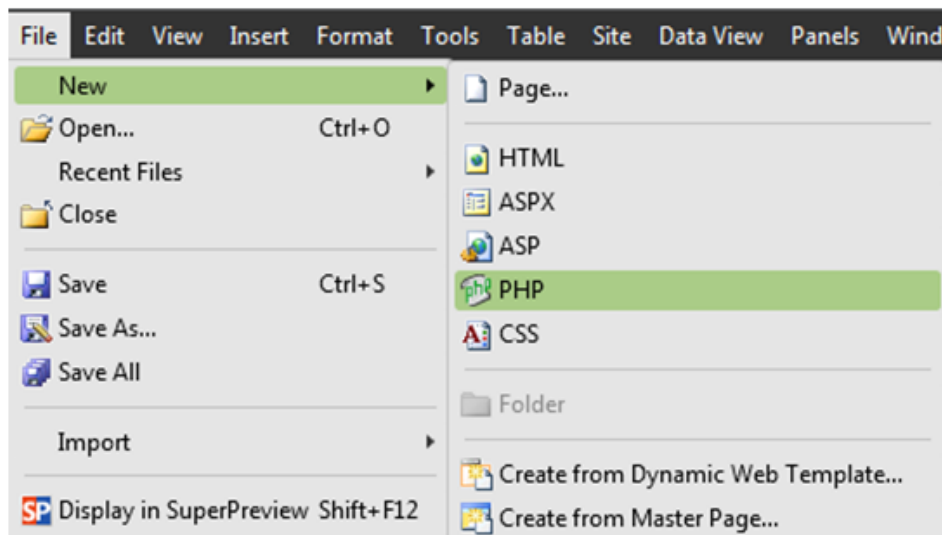


Figure (23) users table in the data base.

**Secondly:** creating new users reg.php .page

1-Open dictionary website for changing in it & inserting php page & this by using expression web

2-Create new page of php type as in the following Figure:

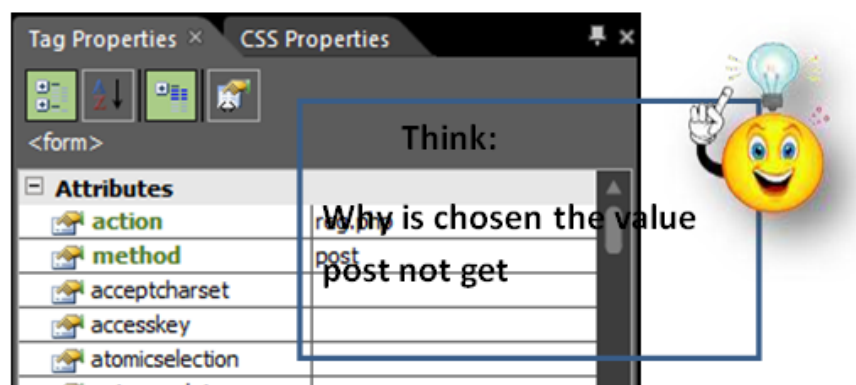


**Figure (24) creating php page & in expression website application**

3- Insert form and in it objects as below. New users registration:

**Figure (25) inserting form contains some of the controls in expression web.**

Adjust the form characteristics, be sure of specifying the value of post for the method as in the following figure



**Figure (26) adjust the form characteristics**

## 5- Study HTML code as in the figure



```
1
2 <html xmlns="http://www.w3.org/1999/xhtml">
3 <head>
4 <meta content="en-us" http-equiv="Content-Language">
5 <meta content="text/html; charset=utf-8" http-equiv="Content-Type">
6 <title> تسجيل الدخول </title>
7 </head>
8 <body dir="rtl">
9 <div>
10
11 <span lang="ar-eg"><strong><span class="style2">تسجيل جديد</span><br class="style2"></strong>
12 </div>
13 <form method="post" action="reg.php">
14 <span lang="ar-eg">اسم المستخدم</span><span lang="en-us">
15 </span><span lang="ar-eg"><br>
16 <input name="txt_user" style="width: 307px" type="text"><br>
17 كلمة المرور </span><span>
18 <span lang="ar-eg"><input name="txt_pass" style="width: 307px" type="password"></span><br>
19 <br> تأكيد كلمة المرور
20 <input name="txt_con" style="width: 307px" type="password"><br>
21 <strong><span></span></strong><br>
22 <input class="style3" name="Submit1" style="width: 149px" type="submit" value="تسجيل"><br>
23
24 </form>
25 </div>
26 </div>
27 </body>
```

### The difference between post and get when creating a form:

In the window of the form characteristics post has been marked to the method & not get.

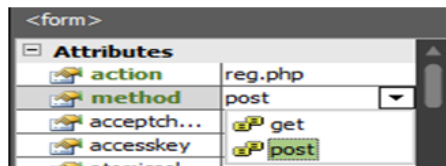


Figure (28) adjust the characteristics method of the form.

Examine html code in the beginning tag of the form to be sure that the value of the method equal to post as in the following:

```
<form method="post" action="reg.php">
```

What is the importance of specifying the value of post not get in the characteristics of the form.

### The importance of the form & how to create it:

Form is used for passing or sending all the data that exists in all the controls from the web to the web server.

There are 2 ways for sending the form data:

1- <form method="GET">

2- <form method="POST">

- When clicking on the button submit protocol http request appears for sending data form to the Web server.

- Request relies on the normal way if it was get or post, secret and secured data has been sent.

- In case post is assigned secret and secured data has been sent. While "Get" is used in certain cases. Some of them:

◀ If the data is little.

◀ If data is not secret because it appears on the address line of the internet screen.

PHP code	no
<b>Note we should write this code in the beginning of the page before the code</b>	1
<pre>&lt;?php include("header.php"); ?&gt;</pre>	2
<pre>&lt;?php include("connection.php");  if(isset(\$_POST['Submit1'])) {     \$txt_user=\$_POST['txt_user'];     \$txt_pass=\$_POST['txt_pass'];     \$txt_con=\$_POST['txt_con'];      mysql_query("SET NAMES 'utf8'");     \$query=mysql_query("insert into users values('','\$txt_user','\$txt_pass')");  } ?&gt;</pre>	3

## Explaining parts of PHP code.

### 1- PHP code:

```
<?php  
session_start();  
?>
```

- it refers to a session declaratin inside the code of the page

### Session :

It's a way of storing data in a variable inside the server to one user.

This variable is available for usage through all the website pages. All the time the user browse the pages.

When dealing with the user entry page, we should be sure that the user registered an entry or not, until using the session variables through the website pages. Through adding the previous code at the beginning of the website page which we need using session variables to it. For dealing with the session we should use the previous code at the beginning of the page.

### 2- PHP code

```
<?php  
include("header.php");  
?>
```

The code refers to including header .php as explained before

### 3- PHP code

```
include("connection.php");
```

it refers to including the page that is connected to the database as explained before.

- Using variable user **POST**:
- To get the value of controls just after clicking on submit button
- we use (if) statement to be sure of pressing on submit button:

```
if(isset($_POST['Submit1']))
```

- The content of controls on the form is assigned to variables.

← \$txt\_us      User name  
← \$txt\_pa      Password  
← \$txt\_cc  
                Confirming password

- Using the function `mysql_query` helps to solve the problem of dealing with data on the browser screen in Arabic language correctly without question marks.

```
mysql_query("SET NAMES 'utf8'");
```



Through mysql query the user value has been inserted. They are username, password in variables \$txt\_user, \$text\_pass and the true value is specified for the variable \$query in case the insertion process succeeds in the users table in the database Note: the statement “insert into sql is used to add new data of a record to users table in the database .

\$query=mysql\_query("insert into users values(',\$txt\_user','\$text\_pass')");



Thirdly: trying & doing reg.php page in browser window to specify problems & treating them:

- Open page in browser by the following address

**<http://localhost/dictionary/reg.php>**

Then, follow the following procedures with opening the users table each time and note the input effect in the table:

Procedures steps in reg.php	the effect of the input in users table
<ul style="list-style-type: none"> <li>• Insert username</li> <li>• Insert 2 passwords</li> <li>• click on the register button</li> </ul>	
<ul style="list-style-type: none"> <li>• Open users table</li> <li>• Notice data has been added or not?</li> <li>• Record your notes</li> </ul>	

<ul style="list-style-type: none"> <li>• Insert new user.</li> <li>• Leave password field empty</li> <li>• Record your notes</li> </ul>	
<ul style="list-style-type: none"> <li>• Insert new user password</li> <li>• Insert two unidentical passwords</li> <li>• Record your notes</li> </ul>	
<ul style="list-style-type: none"> <li>• insert the two passwords</li> <li>• Leave the user's name field empty</li> <li>• Record your notes.</li> </ul>	

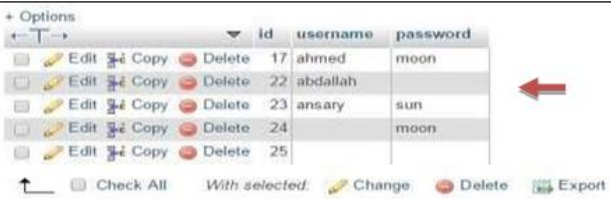

<p>Leave all the fields empty</p> <p>Record your notes</p>	
<ul style="list-style-type: none"> <li>• insert the same user more than once</li> <li>• Record your notes</li> <li>• ..</li> </ul>	

Figure (30) the probabilities of inserting the user name and password.

After studying the possible procedures and its data in reg.php page and its effect on the inputs in user table. It is clear that the shape of the form, it has no security rules and Precautions, Because of the following reasons

- There is no certainty of data validation like (accepting empty fields has no test for identical passwords.....).
- User name field in users table and this illogical, as there should not be more than one username with the same name.
- The password is clear without encryption.

for treating these problems : we should do the following :

## 1-treating repetition in username field in users table

- ◀ Treating repetition we should do the following:
- ◀ click on structure in MYSQL page, as you learned the characteristics of users tables
- ◀ click to make the field unique (Unique field doesn't accept repetition).

◀ click to make the field unique (Unique field doesn't accept repetition)



Figure (31) updating the properties of username to stop repetition

After clicking on unique which means doesn't accept repetition, a window appears as follows:

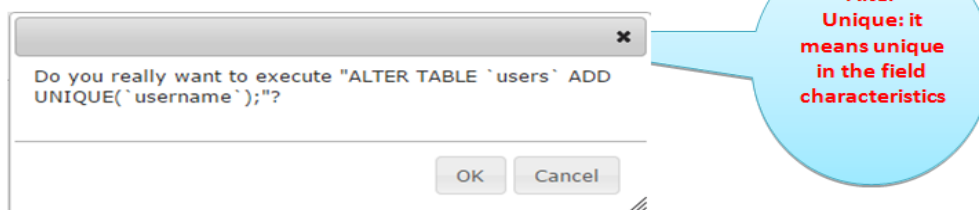
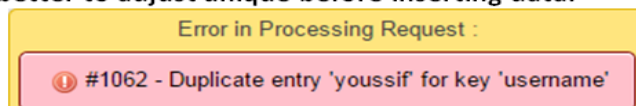


Figure (32) a text box Certainty for the username is unrepeated "unique"

- ◀ Click on OK, a window appears to you, it shows the inability of the field to be unique & that's for having a repeated record or more.
- ◀ So it is better to adjust unique before inserting data.



-Figure (33) Error messages because of the inability for adding unique properties, because there is a repeated username.

- ◀ When this process succeeds (there is no repeated records) no error message appears as the previous message and the following message appears:

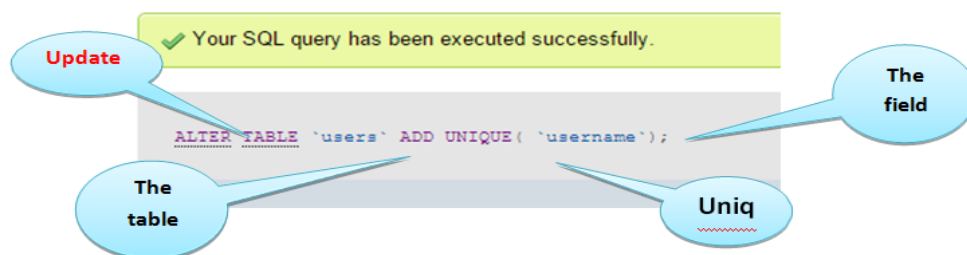


Figure (34) a message shows running/operating SQL statement successfully

## The third subject

Designing page -sign in  
php/ sign out .php



## Learning outcomes:

### At the end of this subject:

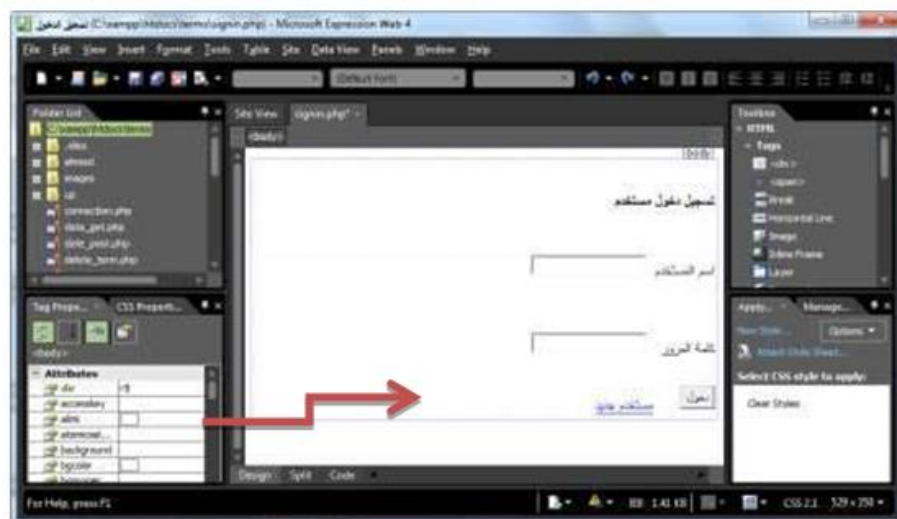
1. Create sign in page by using expression web.
2. Cooperate with classmates to study HTML to create sign in page.
3. Create sign out page by using expression web.

## Firstly: Creating signing in php by using expression web: How it works:

- 1- Inserting the username and password then click on enter button.
- 2- Searching in users table for a user name if it exists, then it has been compared between the passwords of the user with the stored password in the user data base table.
- 3- If it is right; the user name will be stored in the variable session and shows a welcome message by the username.
- 4- If it is not right there's a difference between the username & password then a wrong message appears.
- 5- There are other pages affects by signing in like adding term page updating page, deleting page where we should change code in it every one of them where we couldn't complete adding , updating, and deleting except after recording signing in to the website.

### Steps of creating a page:

- Open expression web and design a page called sign in .php
  - Insert form and insert on it controls as in the screen below
- Figure (38) designing the interface of a user signing in page**



**Figure (38) designing the interface of a user signing in page**

1

```
1 <html xmlns="http://www.w3.org/1999/xhtml">
2   <head>
3     <meta content="en-us" http-equiv="Content-Language">
4     <meta content="text/html; charset=utf-8" http-equiv="Content-Type" >
5     <title>تسجيل الدخول</title>
6   </head>
7
8   <body dir="rtl">
9     <?php
10    include("header.php");
11    ?>
12    <span lang="ar-eg"><strong><span class="style2">تسجيل دخول مستخدم</span>
13      <br class="style2">
14      </strong>
15    </div>
16    <form name="admin" action="signin.php" method="post"
17      enctype="multipart/form-data">
18      اسم المستخدم &nbsp;&nbsp;&nbsp;<input name="user" type="text"><br><br><br>
19      كلمة المرور &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input name="pass" type="password"><br>
20      <br>
21      <input name="submit1" type="submit" value="دخول">
22      &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<a href="reg.php">مستخدم جديد</a>
23    </form>
24  </div>
25 </body>
26 </html>
```

PHP code that is about Header page

2

## The fourth subject The website security precautions



### Learning out comes:

**At the end of this subject the student will be able to:**

1. execute updates according to session concept for a user and for the ability to update or add or delete in the database
2. Practice the hyperlink process for signing in and signing out pages of a user.
3. Employ the conditional statement (if) to confirm signing in.



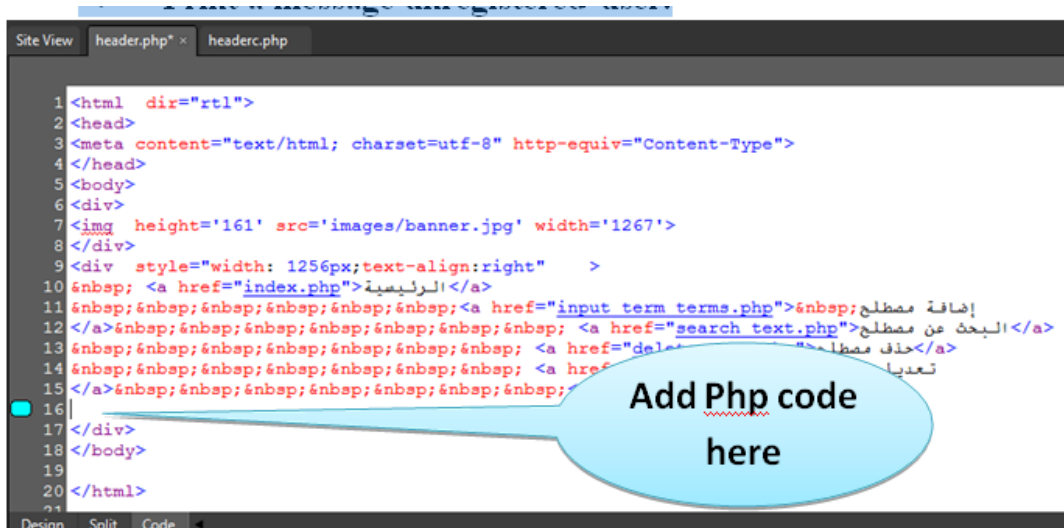
**For testing if the signing in has been done or not:**

## In case the signing in is done:

- ◀ Adding a welcome expression next to it the user name.
- ◀ Showing a hyperlink by registering signing out

**-In case of not signing in or opening the web page for the first time. We do the following:**

- ◀ **Add a hyperlink by signing in**
- ◀ Print a message unregistered user.



**Figure (42) for updating in header page.**

**hp code that's added on the referred place, the figure, it is tested if signed in  
r not**

[illegible]

Figure (43) Adding the hyperlink sign in through php code in header page

### Explaining the code:

## The conditional IF statement

**if(@\$\_SESSION['username'] == "")**

Php language deals with the sign @ as a variable

Remember that one of the php language rules is to put the sign \$ before variable name.

\$ Session is variable in the server memory for the certainty that the user could sign in or not.

IF statement condition

-it is tested if the user name equal null which means it's empty it has no data, there are two cases if it will be done or not.

- If the condition is true (yes)

Sign in becomes a hyperlink which is to sign in page that 's called sign in .php and leaves many spaces and print on the browser page the user isn't registered ,then variable session its value in the code

is null:

**\$\_SESSION['username'] == "";**

If the if condition isn't true.

It means: Session contains a value is the user name :then the sign out phrase becomes a hyperlink to sign out page that's called sign out.php, and leaves many spaces and print a welcome message on the browser page " you're welcome " then leave many spaces , and write the user name that 's inserted in variable session by the code

:\$\_session [username]: you're welcome ) Echo.

**Changing the code in update page:**

Add the conditional statement to the marked place to test if it is completed signing in or not, if it doesn't sign in we redirect to a page which says that the sign in or out from the **update page, is invalid.**



```

<?php
session_start();
?>
<html dir="rtl">
<head>
<meta content="text/html; charset=utf-^" http-equiv="Content-Type" >
<title>تحديث مصطلح </title>
</head>

<body>

<?php
include("header.php");
?>

<h1><p > تعديل مصطلح </p> </h1>
<?php
include("connection.php");
mysql_query("SET NAMES 'utf^'");
$sql="select * from terms";
$query=mysql_query($sql);
$num=mysql_num_rows($query);

```

A conditional statement is added

Figure (44) Adding php code in updating page allows the user who could sign in to do changes

```

if($_SESSION['username'] == "")
{
header("Location: ask_to_sign_in.php");
exit;
}

```

It means that when we don't have a user sign in, we redirect the user to a page called **ask\_to\_sign\_in php** then go out from the code of the page

#### Ask-to sign in php page:

It's a page which is designed to show the user a message of what he has to do.

للقيام بهذه العملية لابد من تسجيل الدخول  
لتسجيل الدخول الآن انقر [هنا](#) أو لمستخدم جديد انقر [هنا](#)

A hyperlink to  
page reg.php

A hyperlink to  
page signin.php

Use your experience to design the previous page and do its hyperlink which is shown in it.

After changing the code, we add the same previous conditional statement in the beginning of PHP code and in adding term page and also in deleting term page.

## **The fifth Subject**

### **Securing database**

### **MYSQL.**

### Learning out comes:

**At the end of the subject, it is expected that the student will be able to:**

1. Mentions ways to secure the database.
2. Discuss a big number of ideas to secure database.
3. Could change user name and password in the database
4. Explain the security codes and their aims.

### Creating a password to secure the database:

When installing XAMPP, a user is created, its name is root without a password, and this means let everyone deal with the database, so it's important to create a password for securing the database.

Remember the page is known by connection php

```
<?php
$username="root";

$password="";

$dbname="term";

$server="localhost";

$conn=mysql_connect("$server","$username","$password");
if ($conn)
{
    $select=mysql_select_db("$dbname") or die("هناك مشكلة في قاعدة البيانات");
}
else
{
    echo("لم يتم الاتصال بقاعدة البيانات");
}
?>
```

Figure (45) PHP code in connection page in the database with weak security.

# XAMPP for Windows

**XAMPP SECURITY**  
(Requests allowed from localhost only)

This page gives you a quick overview about the security status of your XAMPP installation. (Please continue reading after the table.)

Subject	Status
These XAMPP pages are accessible by network for everyone Every XAMPP demo page you are right now looking at is accessible for everyone over network. Everyone who knows your IP address can see these pages.	UNSECURE
The MySQL admin user root has NO password Every local user on Windows box can access your MySQL database with administrator rights. You should set a password.	UNSECURE
PhpMyAdmin is free accessible by network PhpMyAdmin is accessible by network without password. The configuration 'httpd' or 'cookie' in the "config.inc.php" can help.	UNSECURE
A FTP server is not running or is blocked by a firewall!! A FTP server is not running or is blocked by a firewall!!	UNKNOWN

The green marked points are secure; the red marked points are definitively insecure and the yellow marked point be checked (for example because the software to check isn't running).

To fix the problems for mysql, phpmyadmin and the xampp directory simply use  
=> <http://localhost/security/xamppsecurity.php> <= [allowed only for localhost]

Click to get to the page of changing the password

Note the unsecure status of each item

Figure (46) changing the user name, the password in the database.

Study carefully the previous screen, then do what you are asked to do then ,the following screen appears:

**Security console MySQL & XAMPP directory protection**

---

**MYSQL SECTION: "ROOT" PASSWORD**

MySQL SuperUser: **root**

New password:

Repeat the new password:

PhpMyAdmin authentication: ☐ http ☒ cookie

---- Security risk! ----

Safe plain password in text file? ☐  
(File: C:\xampp\security\security\mysqlrootpasswd.txt)

Figure (47) Inserting a new password and confirming it to the database to be more secure

From the previous figure write the new password and confirm it then click on password/changing.

Of course we must edit the password in connection php as follows;

```
$password="HowTo_Design_php_web_site";
```

## Notice:

- ➡ The suggested password is chosen for the difficulty of guessing it by a web penetrator.
- ➡ The password should be difficult and complicated.
- ➡ No password is used except in connection php page.